

AMENDMENTS TO THE CLAIMS

1-20. (Cancelled)

21. (Currently Amended) A method of manufacturing a plasma display panel (PDP) comprising a process of forming a metal oxide film made from magnesium oxide onto a substrate of the plasma display panel, the process of forming the metal oxide film comprising:

controlling a degree of vacuum and a partial pressure of a predetermined gas in a deposition room within a certain range;

introducing oxygen gas into the deposition room and controlling a partial pressure of the oxygen gas within a range from 3×10^{-3} Pa to 3×10^{-2} Pa, so as to restrain an amount of dangling bonds in the metal oxide film; and

introducing another gas into the deposition room so as to increase an amount of the dangling bonds in the metal oxide film, the another gas ~~capable of~~ including carbon monoxide, carbon dioxide, or carbon monoxide and carbon dioxide,

wherein when the another gas includes carbon monoxide, controlling a partial pressure of the carbon monoxide within a range from 1×10^{-3} Pa to 5×10^{-2} Pa;

wherein when the another gas includes carbon dioxide, controlling a partial pressure of the carbon dioxide within a range from 1×10^{-4} Pa to 3×10^{-3} Pa; and

wherein the degree of vacuum in the deposition room is controlled within a predetermined range by adjusting an amount of an inert gas introduced into the deposition room.

22-26. (Cancelled)

27. (Currently Amended) An apparatus for manufacturing a plasma display panel (PDP) for forming a metal oxide film onto a substrate of the PDP, said apparatus comprising:

a deposition room;

a gas-introducing means for introducing oxygen gas to restrain an amount of dangling bonds in the metal oxide film and another gas to increase an amount of the dangling bonds in the metal oxide film into the deposition room, the another gas ~~capable of~~ including carbon monoxide, carbon dioxide, or carbon monoxide and carbon dioxide;

an exhausting means for exhausting the deposition room;

a partial-pressure detecting means for independently detecting a partial pressure of the oxygen gas and the at least one gas of the another gas in the deposition room;

a degree of vacuum detecting means for detecting a degree of vacuum in the deposition room; and

a control means for controlling an amount of the oxygen gas and the another gas to be introduced into the deposition room and an amount of evacuation from the deposition room based on information supplied from the partial-pressure detecting means and information supplied from the degree of vacuum detecting means such that the partial pressure of the first gas and the another gas is within a controlled range,

wherein the partial pressure of the oxygen gas is controlled within a range from 3×10^{-3} Pa to 3×10^{-2} Pa;

wherein when the another gas includes carbon monoxide, controlling a partial pressure of the carbon monoxide within a range from 1×10^{-3} Pa to 5×10^{-2} Pa;

wherein when the another gas includes carbon dioxide, controlling a partial pressure of the carbon dioxide within a range from 1×10^{-4} Pa to 3×10^{-3} Pa; and

wherein the degree of vacuum in the deposition room is controlled within a predetermined range by adjusting an amount of an inert gas introduced into the deposition room.

28. (Cancelled)

29. (New) A method according to claim 21, wherein said introducing another gas into the deposition room includes introducing another gas including carbon monoxide and carbon dioxide.

30. (New) An apparatus according to claim 27, wherein said gas-introducing means is for introducing oxygen gas to restrain an amount of dangling bonds in the metal oxide film and another gas to increase an amount of the dangling bonds in the metal oxide film into the deposition room, the another gas including carbon monoxide and carbon dioxide.

31. (New) A method according to claim 21, wherein said introducing another gas into the deposition room includes introducing another gas including carbon monoxide.

32. (New) An apparatus according to claim 27, wherein said gas-introducing means is for introducing oxygen gas to restrain an amount of dangling bonds in the metal oxide film and another gas to increase an amount of the dangling bonds in the metal oxide film into the deposition room, the another gas including carbon monoxide.